UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/939,147	08/24/2001	Wei Lu	30691.3	2989

27683　　7590　　04/26/2005		EXAMINER
HAYNES AND BOONE, LLP		ABELSON, RONALD B
901 MAIN STREET, SUITE 3100	ART UNIT	PAPER NUMBER
DALLAS, TX 75202	2666	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 August 2001_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under _Ex parte Quayle_, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,2,6-9,13-16,19-21 and 24_ is/are rejected.

7)☒ Claim(s) _3-5,10-12,17,18,22 and 23_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _24 August 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _1/10/03 & 4/28/03_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claim Objections

1.   Claim 15 objected to because of the following
informalities: Line 7, "when" should be replaced with
"wherein".   Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs
of 35 U.S.C. 102 that form the basis for the rejections under
this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published
> under section 122(b), by another filed in the United States before the
> invention by the applicant for patent or (2) a patent granted on an
> application for patent by another filed in the United States before the
> invention by the applicant for patent, except that an international
> application filed under the treaty defined in section 351(a) shall have the
> effects for purposes of this subsection of an application filed in the
> United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English
> language.

3.   Claims 1, 2, 8, and 9 rejected under 35 U.S.C. 102(e) as
being anticipated by Iyer (US 20020116502).

Regarding claims 1 and 8, Iyer teaches a method for
controlling packet communications between a first network and a
second network (fig. 1, fig. 5).

Iyer teaches implementing a server module (fig. 6 box 60,
[0029]) in a connecting node (gateway, pg. 2 [0029], fig. 1 box
16), the connecting node for monitoring one or more packets

exchanges between the first (fig. 1: private network) and second
networks (fig. 1: public network).

Iyer teaches implementing a driver module in a first node
inside the first network (request and obtains a public IP
address from the gateway, pg. 1 [0022], fig. 1 private network).
The device requesting the public IP address is the driver.

Iyer teaches associating, with the assistance of the server
and driver modules, a network address and port used by the first
node (source IP address and ports of packets, [pg. 1 [0021])
with a predetermined application (application specific software,
application level gateways, modify IP addresses and port in
application payload, pg. 1 [0021]).

Iyer teaches the network address and port is used for
sending at least one packet of the application to a second node
in the second network (pg. 1 [0021]).

Regarding claims 2 and 9, executing packet communications
between the server module and the driver module to inform the
connecting node about the network address (fig. 5 box 54, 56,
secure a public address of private network 12 from internal
network interface, [0027]) and port (NAT/RSIP layer 56 may also
modify the source port obtained in TCP/UDP layer, [0027]) before
the first node sends a first packet of the application to the

second node (before packet 20 may be routed by gateway 16 to its

destination address, [0027]).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the
> art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

5.   Claims 6, 7, 13, and 14 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Iyer as applied to claims 1 and 8

above, and further in view of Hirano (US 6,608,830).

Regarding claims 6 and 13, in addition to the limitations

previously addressed, Iyer teaches associating further comprises

establishing a look-up table for recording a relation between

the network address and port used by the first node for the

application ([0021]).

Iyer is silent on the look-up table record the relation

between the application, network address and port.

Hirano teaches the look-up table records the relation between the application, network address and port (fig. 9, col. 5 lines 12-17).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Iyer by incorporating within the NAT table of Iyer application information as shown by Hirano. This would improve the system by making the system applicable to a multiprotocol environment.

Regarding claim 7 and 14, the look-up table further comprises a network address and port for the second node / computer (enables gateway to de-multiplex address information from inbound packets to outbound packets, [0021]).

6.   Claims 15, 16, 19, 20, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer as applied to claims 1 and 8 above, and further in view of Hirano.

Regarding claims 15 and 20, Iyer teaches a method for controlling packet communications between a first network and a second network (fig. 1, fig. 5).

Iyer teaches extracting, by a network application association (NAA) driver module implemented in a first computer of the first computer network (fig 5 box A), information about a

network address (fig. 5 box 54, 56, secure a public address of

private network 12 from internal network interface, [0027],

source IP address transmitted from a private network, [0021])

and port (NAT/RSIP layer 56 may also modify the source port

obtained in TCP/UDP layer, [0027], ports transmitted from a

private network, [0021]) used by the first computer for sending

packets of the application session to a second computer in the

second computer network (fig. 5 box B) when the first computer

initially determining a port for the application session

(NAT/RSIP layer 56 may also modify the source port obtained in

TCP/UDP layer, [0027], source IP address and ports transmitted

from a private network, [0021]).

Iyer teaches sending the extracted information fig. 5 box

54, 56, secure a public address of private network 12 from

internal network interface, [0027] from the NAA driver module

(fig. 1 Private Network, fig. 5 box A to an NAA server module

(fig. 1 box 16, fig. 5 box 54, 56, secure a public address of

private network 12 from internal network interface, [0027])

implemented in a gateway node of the first computer network

(fig. 1 box 16), the gateway node monitoring one or more packets

exchanging between the first and second computer networks (fig.

1: gateway 16 located in path between the private and public

network).

Iyer teaches establishing a look-up table for recording the relation between the network address and port used by the first computer for the application session ([0021]).

Iyer teaches controlling the packet communications between the first and second network by the gateway node based on the established look-up table (enables the gateway to de-multiplex address information, [0021]).

Iyer is silent on extracting information about an application session and establishing a lookup table for recording the application session.

Hirano teaches the look-up table records the relation between the application, network address and port (fig. 9, col. 5 lines 12-17).

Therefore it would have been obvious to one of ordinary skill in the art, to modify the system of Iyer by incorporating within the NAT table of Iyer application information as shown by Hirano. Furthermore, the first computer could send information about the application session / protocol when it sends the address and port information to the gateway. This would improve the system by making the system applicable to a multiprotocol environment.

Regarding claims 16 and 21, the step of sending is completed before the first computer sends a first packet of the application to the second computer (Iyer: before packet 20 may be routed by gateway 16 to its destination address, [0027]).

Regarding claims 19 and 24, the look-up table further comprises a network address and port for the second computer (Iyer: enables gateway to de-multiplex address information from inbound packets to outbound packets, [0021]).

Allowable Subject Matter

7.   Claims 3-5, 10-12, 17, 18, 22, and 23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 3, 10, 17, and 22, nothing in the prior art of the record teaches or fairly suggests the network address and port used by the first node and information for identifying the application are included in a predetermined data portion of at least one packet, in combination with all the limitations listed in the claim. For support, see spec [0029].

Regarding claims 4, 11, 18, and 23, nothing in the prior art of the record teaches or fairly suggests the driver module monitors information exchanged between the application interface and a network driver in the first node, combination with all the limitations listed in the claim.

Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Abelson
Examiner
Art Unit 2666

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